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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/404,291	09/23/1999	KENNETH LEE LEVY	LEVY2R	8258

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EXAMINER
MCARDLE, JOSEPH M

ART UNIT	PAPER NUMBER
2132	6

DATE MAILED: 07/30/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	09/404,291	LEVY, KENNETH LEE	
	Examiner	Art Unit	
	Joseph McArdle	2132	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☐ Responsive to communication(s) filed on _____ .

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) 1-29 is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) 1-29 is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

11)☐ The proposed drawing correction filed on _____ is: a)☐ approved b)☐ disapproved by the Examiner.

If approved, corrected drawings are required in reply to this Office action.

12)☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

13)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____ .

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

14)☒ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).

a) ☐ The translation of the foreign language provisional application has been received.

15)☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 2 .
4) ☐ Interview Summary (PTO-413) Paper No(s). _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: .

DETAILED ACTION

Claim Rejections - 35 USC § 112

1. The following is a quotation of the second paragraph of 35 U.S.C. 112:

> The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

2. Claim 1 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. No method steps were positively recited to show how an action becomes enabled by the presence of embedded data.

3. Claim 2 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. The claim recites a desired result rather than the actual steps involved in determining the allowance of an action

4. Claims 3, 4, and 5 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. Claims 3, 4, and 5 recite the limitation " the auxiliary information ". There is insufficient antecedent basis for this limitation in the claims. Claim 4 also recites the limitation " the original data " on line 3. There is insufficient antecedent basis for this limitation in the claim.

5. Claims 6 and 7 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. Claims 6 and 7 recite the limitation " the encryption keys ". There is insufficient antecedent basis for this limitation in the claim. Claim 6

also recites the limitation " the sending and receiving devices ". There is insufficient antecedent basis for this limitation in the claim.

6. Claim 8 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. The claim recites a desired result rather than the actual steps involved in tracing an illegal version of media to the creation device.

7. Claim 11 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. The claim recites a desired result rather than the actual steps involved in dynamically locking embedded data.

8. Claims 13, 14, 21, and 22 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. The claims make reference to a complete document rather than citing specific embodiments contained within the document.

9. Claims 17, 18, 25, and 26 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. Claims 17, 18, 25, and 26 recite the limitation " the locked auxiliary data bits ". There is insufficient antecedent basis for this limitation in the claim.

10. Claim 19 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant

regards as the invention. The claim recites a desired result rather than the actual steps involved in dynamically unlocking retrieved data.

11. Claims 27-29 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. The claims recite a desired result rather than the actual method steps.

12. Claims 9, 10, 12, 15, 16, 20, 23, 24, are rejected under 35 U.S.C. 112, second paragraph, as being dependent on a rejected indefinite base claim.

Claim Rejections - 35 USC § 102

13. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

14. Claims 1, 3, 4, and 5 are rejected under 35 U.S.C. 102(b) as being anticipated by Barton (5646997). In regards to claim 1, to the extent which it was understood, Barton discloses in column 7, lines 65-67 and column 8, lines 1-28, a method of retrieving and decoding auxiliary data in response to auxiliary data being placed into the original data. In regards to claim 3 and 5, to the extent which they were understood, Barton discloses in column 7, lines 14-26, encrypting the embedded data in order to provide greater security. In regards to claim 4, to the extent which it was understood, Barton discloses

in column 6, lines 51-76, and in column 7, lines 1-45, a method for dynamically locking embedded data based on the original data.

15. Claim 8 is rejected under 35 U.S.C. 102(b) as being anticipated by Morris (5530751). To the extent which it was understood, Morris discloses in column 2, lines 32-38, a method of securing ownership rights by tracking customers who make copies of digital data without authorization.

16. Claims 11 and 12 are rejected under 35 U.S.C. 102(b) as being anticipated by Barton (5646997). In regards to claim 11, to the extent which it was understood, Barton discloses in column 6, lines 51-76, and in column 7, lines 1-45, a method for dynamically locking embedded data based on the original data. With regards to claim 12, to the extent which it was understood, Barton further discloses in column 7, lines 14-26, encrypting the embedded data in order to provide greater security.

17. Claims 27, 28, and 29 are rejected under 35 U.S.C. 102(b) as being anticipated by Barton (5646997). In regards to claim 27, to the extent which it was understood, Barton discloses in column 4, lines 11-26 and figure 3., an apparatus for embedding authentication information within digital data. In regards to claim 28, to the extent which it was understood, Barton discloses an embedding process in column 6, lines 51-76, and in column 7, lines 1-45, which contains a means for both modifying and encrypting auxiliary data. In regards to claim 29, to the extent which it was understood, Barton further discloses a decoding process in column 7, lines 65-67 and column 8, lines 1-28, which contains a means for both unmodifying and decrypting the auxiliary data.

Claim Rejections - 35 USC § 103

18. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

19. Claims 13 and 21 are rejected under 35 U.S.C. 103(a) as being unpatentable over Barton in view of Rhoads (5636292). To the extent which they were understood, Barton disclosed all the aforementioned limitation of claims 11, 12, 19, and 20. However, Barton's design does not meet the limitations of claims 13 and 21 that call for modifying auxiliary information based upon the value of the peek or threshold crossing. Rhoad's design teaches in column 7, lines 61-67, and column 8, lines 1-30, how peak or threshold crossing can be used to allow for data re-alignment during the retrieval process. It would have been obvious to one of ordinary skill in the art at the time the invention was made to substitute Rhoad's teachings on the use of peak or threshold crossing into Barton's design in order to allow for data re-alignment during the retrieval process.

20. Claims 14 and 22 are rejected under 35 U.S.C. 103(a) as being unpatentable over Barton in view of Wolosewicz (5774452). To the extent which they were understood, Barton discloses all of the aforementioned limitations of claims 11, 12, 19, and 20. However, Barton's design does not meet the limitations of claims 14 and 22 that call for modifying the auxiliary information based upon the values previous in time to the embedded bit stream. Claims 14 and 22 make a direct reference to

Wolosewicz's design, which discloses the aforementioned limitations of claims 14 and 22. It would have been obvious to one of ordinary skill in the art at the time the invention was made to substitute Wolosewicz's design into Barton's design in order to provide a method of embedding auxiliary information, without significant perceptual interference.

21. Claims 15, 16, 23 and 24 are rejected under 35 U.S.C. 103(a) as being unpatentable over Barton in view of Cooperman (5613004). In regards to claims 15 and 23, to the extent which they were understood, Barton discloses all of the aforementioned limitations of claims 11, 12, 19, and 20 described above. However, Barton's design does not meet the limitations of claims 15 and 23 that call for modifying the auxiliary information based upon unchanged original data bits purposely skipped when embedding a PN sequence. On page 17, line 13 of the specification the applicant makes a direct reference to Cooperman's design, which meets the exact limitations of claims 15 and 23. It would have been obvious to one of ordinary skill in the art at the time the invention was made to substitute Cooperman's design into Barton's design in order to provide a method of embedding auxiliary information, without significant perceptual interference.

22. In regards to claims 26 and 24, to the extent which they were understood, Barton discloses all of the aforementioned limitations of claims 11, 12, 19, and 20 described above. However, Barton's design does not meet the limitations of claims 16 and 24 that call for modifying the auxiliary information based upon unchanged original data bits that are not used for embedding because the PN sequence is forced to designate these

as non-embedding data in locations. On page 17, line 13 of the specification the applicant makes a direct reference to Cooperman's design, which meets the exact limitations of claims 16 and 24. It would have been obvious to one of ordinary skill in the art at the time the invention was made to substitute Cooperman's design into Barton's design in order to provide a method of embedding auxiliary information, without significant perceptual interference.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Joseph McArdle whose telephone number is (703) 305-7515. The examiner can normally be reached on 8:00 am - 5:00pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Gilberto Barron can be reached on (703) 305-1830. The fax phone numbers for the organization where this application or proceeding is assigned are (703) 746-7239 for regular communications and (703) 746-7238 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 305-3900.

Joseph McArdle
Examiner
Art Unit 2132

GILBERTO BARRON
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2100

jmm
July 25, 2003